



## Assignment Process for Additional Spectrum for Wireless Broadband

### Amended Decision

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## 1. Introduction

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### 1.1 BACKGROUND

In March 2014, the Malta Communications Authority ("Authority" or "MCA") published a consultation paper outlining a proposed methodology for the assignment of spectrum in the 800 MHz, 1800 MHz and 2.5 GHz bands together with the applicable licence conditions. Responses to consultation were received from the following entities:

- GO plc;
- Melita Mobile Ltd; and
- Vodafone Malta Ltd.

The submissions received put forward a number of considerations and differing opinions regarding the proposed assignment process.

In July 2014, the MCA published the decision "Assignment Process for Additional Spectrum for Wireless Broadband" MCA/D/14-1933 (hereafter referred to as "the Decision"). The Decision established the methodology for the assignment and management of spectrum in the 800 MHz, 1800 MHz and 2.5 GHz bands respectively.

With the latest developments in the local mobile industry, coupled with the rapid evolution of technology, the use of the 800 MHz spectrum has become paramount for the mobile operators. In view of these developments, the MCA published a consultation paper in August 2017. The consultation proposed a number of amendments to revise in part the assignment and management principles of the 800 MHz spectrum band as specified in the Decision. The proposals were put forward so as to bring in line the established assignment and management principles with the current market circumstances.

The Authority takes the opportunity to thank all respondents for their contributions to the consultations.

### 1.2 PURPOSE

The purpose of this document is to inform the public of the assignment process that will be adopted in respect of spectrum in the 800 MHz, 1800 MHz and 2.5 GHz bands and the conditions that will be attached to the resulting rights of use.

Specifically this document provides information related to the steps that will be taken by the Authority in respect of the assignment of these frequencies and sets out a clear course for the selection of prospective rights of use holders.

The Decision supersedes the Authority's preliminary position on the 2.5 GHz band published on 19 November 2008. The decision also revises certain aspects established in the Authority's Decision of 2010 in respect of the 1800 MHz band.

This amended Decision supersedes the MCA's Decision "Assignment Process for Additional Spectrum for Wireless Broadband" MCA/D/14-1933. The amendments to the Decision MCA/D/14-1933 as reflected in this document are marked in green. The Decision (MCA/D/14-1933) shall prevail in case of any discrepancies in the unaltered text of the amended Decision.

### **1.3 PRINCIPLES UNDERPINNING SPECTRUM MANAGEMENT**

The assignment of spectrum is based on a set of fundamental principles:

- spectrum is a limited national resource and must be used efficiently and effectively;
- operators have time-bound rights of use of spectrum and NOT ownership;
- if demand exceeds supply, a fair, transparent and non-discriminatory competitive assignment process is necessary to determine who is entitled to hold the rights of use; and
- a competitive selection process for the award of radio spectrum can be based on qualitative (beauty contest) and/or quantitative (auction) criteria depending on circumstances.

The above principles underpin the assignment methodology and the licence conditions that are being put forward in this decision.

## 2. Abridged Responses to Consultation

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In August 2017, the MCA issued a consultation document in order to amend the Decision “Assignment Process for Additional Spectrum for Wireless Broadband” that was published by the Authority back in July 2014. Throughout the consultation, the MCA proposed a number of amendments to revise in part the assignment and management principles of the 800 MHz spectrum band as specified in the said Decision. During the consultation process, the interested players were invited to express their opinion on the key questions highlighted in the consultation document together with any other comments that in their opinion were considered relevant. The consultation period ran until September 2017 during which three mobile telephony service providers, namely GO, Melita Limited (hereafter as Melita) and Vodafone Malta Ltd (hereafter as Vodafone) submitted their formal feedback.

### Summary of the responses received and the MCA’s considerations

1. Do you have any reservations about the fact that the power restriction for Channel 1, based on the outcome of the coordinated large scale 800 MHz trial, will be lifted? Do you agree with setting the power level for Channel 1 equivalent to the other Channels in the 800 MHz band?

*In general, all the submissions concurred with the adopted principal. In addition, GO highlighted that Channels 5 and 6 may be the rational preference for any potential spectrum candidate due to the diminished probability of interference caused on the DTTV service by these channels. Irrespective of the specific individual channels held by any operator, GO invited the MCA to specify in the Decision that the rollouts/switch –ons by the 800 MHz licensees should proceed in parallel on an area by area basis so that any interference caused by the 800 MHz transmissions should be cleared before proceeding with further rollouts/switch-ons in other areas.*

The MCA notes that the suggestion brought forward by GO will be considered in the Operational Manual governing the Interference Mitigation Fund as drafted by the MCA and to be adopted by the potential candidates for the 800 MHz spectrum.

**The MCA has adopted in full the amendment made in Proposal # 1 – Removal of power restrictions for Channel 1**

2. Do you agree with the concept that in view of setting identical Channel technical parameters throughout the entire 800 MHz band, the distinct lot categories are no longer necessary?

*All submissions concurred that the adopted single lot category for the 800 MHz spectrum goes in line with the revised power levels for the available Channels in the 800 MHz band.*

**The MCA has adopted in full the amendment made in Proposal # 2 – Single lot category**

3. Do you agree with the spectrum cap relaxation mechanism as is being proposed?

*In general, GO and Vodafone agreed with the adopted spectrum cap relaxation principles. In addition, Vodafone stated that, irrespective of the applicable spectrum caps, any unallocated spectrum should be made readily available to any party that shows and validly proves interest therein. In addition Vodafone highlighted that, in order to simplify the understanding of whether spectrum demand exceeded supply, the interested parties should limit their application to the two channel limitation in line with the established caps. In its proposals, GO highlighted that the MCA should adopt solid safeguards in relaxing such spectrum caps in order to prevent unfair additional spectrum acquisitions. On the other hand, Melita did not agree with the proposed spectrum relaxation principles due to the fact that in its opinion the existing mechanisms already allow for efficient and competitive spectrum use.*

The MCA notes the concerns brought forward by GO, Vodafone and Melita. The points highlighted by Vodafone in relation to demand and supply are addressed by the MCA in the amended Decision. The MCA plans to consider the other points raised regarding spectrum management in its current activities as part of its spectrum management strategy. With regard to the query brought forward by GO, the MCA notes that the criteria established for the relaxation of spectrum caps were designed in keeping with the principle of maximum spectrum utilisation whilst ensuring fair use of spectrum amongst the interested parties. The MCA does not agree with Melita's submission which was not motivated.

**The MCA has adopted in full the amendment made in Proposal # 3 – Relaxation of spectrum caps**

4. Do you agree with the proposal by the MCA to provide for the setup of the Interference Mitigation Fund prior to the assignment of the right of use for the 800 MHz band?

*In general, all the submissions concurred with the proposal by the MCA to provide for the setup of the interference mitigation fund prior to the assignment of the right of use for the 800 MHz band. In addition, Melita expressed its concern that in order to avoid any unjustified requests for funding, strict measures on audit mechanisms and transparency of requests should be set in place.*

The MCA notes that the suggestion brought forward by Melita will be considered in the Operational Manual governing the Interference Mitigation Fund as drafted by the MCA and to be adopted by the potential candidates for the 800 MHz spectrum.

**The MCA has adopted in full the amendment made in Proposal # 4 – Establishment of an Interference Mitigation Fund**

5. Do you agree with the possibility where in the absence of market demand for the 800 MHz spectrum, the MCA, after sounding carefully the needs and the standpoint of the local industry, issues an expression of interest for the 800 MHz spectrum?

*Both GO and Vodafone expressed their reservation about this proposal. Both respondents were of the opinion that such a proposal may lead to artificial market demand and may therefore trigger delicate market dynamics. On the basis of the foregoing, the respondents were in favour of maintaining the existing trigger for the assignment process, that of a market driven approach especially when considering the fact that the industry will be expressing demand for the 800 MHz spectrum in the short term. Melita concurred with the proposal as put forward by the MCA.*

The MCA took note of the concerns brought forward by GO and Vodafone with regard to the reservations on the possibility for the MCA to issue an Expression of Interest for the band in question in the absence of market demand.

In view of Article 38 (2) of the Electronic Communications (Regulations) Act, the Authority, in the exercise of its respective functions with regard to the allocation and management of radio spectrum, shall act in accordance with objective, transparent, non-discriminatory and proportionate criteria. One of the MCA's principal objectives in managing the national radio spectrum is to safeguard efficient use of spectrum and meeting policy objectives, whilst ensuring that the ECS providers are equipped with adequate resources necessary for the provision of electronic communication services. In line with this objective, the MCA introduced this proposal so as to address market or competitive inefficiencies that may limit ECS providers from expressing market interest for spectrum. The MCA, through this proposal shall therefore reserve the right to

issue such an expression of interest only after carefully sounding the needs and the standpoint of the local industry.

**The MCA has revised and adopted the amendment made in Proposal # 5 – Assignment Process**

6. Do you have any reservations with the measures being proposed by the MCA in order to minimise the opportunities of market entry by inept operators?

*Whilst GO in general was in agreement with the MCA's proposals about the handback procedures, both Vodafone and Melita expressed a number of concerns with respect to this proposal. Vodafone and Melita both argued that the MCA's absolute unconditional or conditional right to accede to a handback request provides an element of risk and uncertainty given that any interested party for the spectrum does not know what such conditions will entail. In addition, whilst both Vodafone and Melita were in agreement about the fact that no handback fees should apply when handback is rendered necessary due to triggers by market conditions and / or to abide by imposed spectrum caps, both Vodafone and Melita requested the MCA to provide further clarification about the applicability of the 1 year handback fee.*

The MCA notes the concerns expressed by GO, Vodafone and Melita. The Authority, in order to ensure that a level of competition is safeguarded within the local mobile market whilst minimising the opportunities of market entry by inept operators or for speculative reasons, is broadening the requirement to pay handback fees irrespective of the expressed market demand. As per Article 72 (2) of the Electronic Communications and Services (General) Regulations (SL 399.28 of the Laws of Malta), the MCA is obliged to establish and make publically available open, objective, transparent, non-discriminatory and proportionate procedures for the grant of rights of use of radio frequencies. On the basis of the obligations that the MCA needs to satisfy with regard to the process and procedures for the grant of right of use of radio frequencies, the Authority will in its evaluation on whether to accept, reject or change the conditions arising from such a handback request, take into utmost consideration the current state of play for the spectrum in question, the market conditions, as well as any other criteria that the Authority may consider appropriate at the point in time. Any handback request, its evaluation and consequential decision, shall be made public on the MCA's website.

The requests for further clarification on the handback fee as brought forward by Vodafone and Melita are addressed by the MCA within this amended Decision.

**The MCA has revised and adopted the amendment made in Proposal # 6 – Handback conditions**

### 3. Spectrum to be awarded

#### 3.1 SPECTRUM BANDS

The spectrum bands that are the subject of this decision are the 800 MHz (790 - 862 MHz), the 1800 MHz (1710 – 1785 MHz / 1805 – 1880 MHz) and the 2.5 GHz (2500 - 2690 MHz) bands.

In this respect the Authority is hereby placing on the market all the available spectrum in these bands. To date the 800 MHz and the 2.5 GHz band is entirely unassigned. ~~Likewise, once the migration of the relevant broadcasting transmissions is completed, the 800 MHz band will be completely available.~~ In addition as outlined in Figure 1, following the 2011 re-assignment process, there are still six unassigned channels in the 1800 MHz band.



FIGURE 1: CURRENT SPECTRUM ASSIGNMENTS IN THE 1800 MHz BANDS

#### 3.2 CHANNELLING PLAN

The channelling plan for the 800 MHz, 1800 MHz and 2.5 GHz bands will be as follows:

**The 800 MHz Band:** The Authority will adopt the channelling arrangement established in the EU Decision 2010/267/EU.

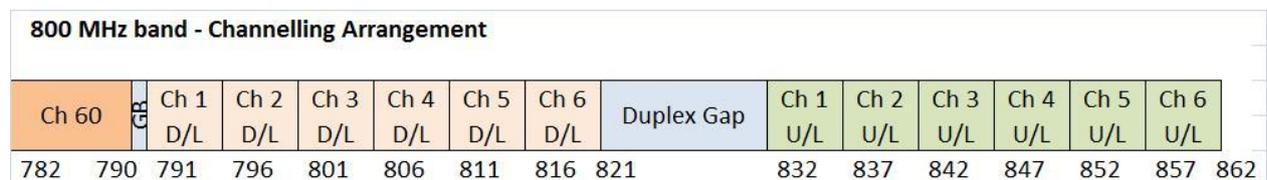


FIGURE 2: CHANNELLING PLAN FOR THE 800 MHz BAND

**The 1800 MHz Band:** In line with the Authority's decision of 2010, the channelling arrangement established in the EU Decision 2009/766/EC will be retained.

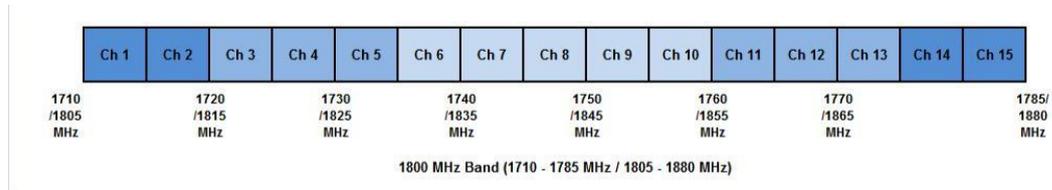


FIGURE 3: CHANNELLING PLAN FOR THE 1800 MHz BAND

**The 2.5 GHz Band:** In this case the Authority will adopt the preferred channelling arrangement established in the EU Decision 2008/477/EC. This results in a combination of paired (FDD) and unpaired (TDD) channels, which in both instances are based on a channel bandwidth of 5 MHz.

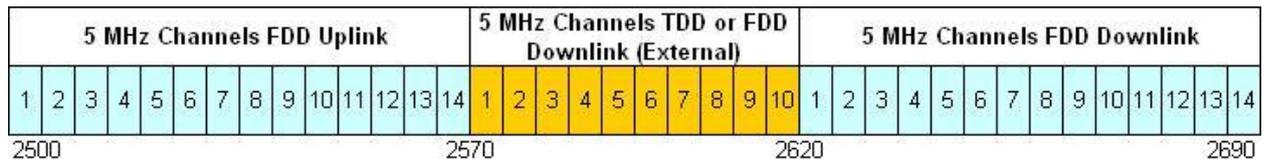


FIGURE 4: CHANNELLING PLAN FOR THE 2.5 GHz BAND

### 3.3 LOT DEFINITION

A 'lot' is the minimum amount of spectrum an interested party can apply for and is defined in terms of the spectrum band, the amount of spectrum and the technical conditions linked to the spectrum use. Lots with different technical characteristics will be classified in separate lot categories.

In view of this the Authority establishes the following:

**800 MHz Band:** Each 5 MHz paired channel will be considered a single lot, six lots in total are available in the band. ~~However, Channel 1 will be subject to greater technical constraints than the others (see Section 4.6). Two lot categories are therefore being established in this band.~~

**1800 MHz Band:** Each 5 MHz paired channel will be considered a single lot. There are six unassigned channels and all channels are subject to the same technical conditions, therefore in total there will be six lots in one lot category.

**2.5 GHz Band (Paired spectrum):** Each 5 MHz paired channel will be considered a single lot, fourteen lots in total. Since all channels are subject to the same technical conditions, all lots will be classified in one lot category.

**2.5 GHz Band (Unpaired spectrum):** The spectrum will be split in two 25 MHz lots and each lot will be classified in a distinct lot category given that one of the lots will be subject to greater technical

constraints. Specifically one of the lots will have only one restricted channel as an interface to the adjacent FDD operation (i.e. Channel 1 of TDD), whilst the other will have two as an interface to the adjacent TDD and FDD operations (i.e. Channels 6 and 10 of TDD).

### 3.4 SPECTRUM CAPS

In order to strike a balance between allowing applicants that value this spectrum most to acquire it via the assignment process and ensuring the desired level of competition in the market, the following spectrum caps will be applied:

- A cap of two (2) 5 MHz paired channels will apply in the 800 MHz band;
- The spectrum cap established in the Authority's decision of 2010 (MCA/10/44/D) will be retained, namely an overall cap of eight (8) 5 MHz paired channels will be applied over the 900 MHz and 1800 MHz bands with a limit of four (4) channels in the 900 MHz band. This spectrum cap will be inclusive of any channels already assigned in these bands; and
- An overall spectrum cap of 230 MHz that takes into consideration all assignments in the 800 MHz, 900 MHz, 1500MHz, 1800 MHz, 2.1 GHz and 2.5 GHz bands. For the avoidance of doubt this includes also unpaired spectrum and the applicant's spectrum holdings at the time of the call of applications. For the purposes of the spectrum cap calculation or spectrum already assigned, a paired 5 MHz channel will be considered as 10 MHz.

#### 3.4.1 RELAXATION OF SPECTRUM CAPS IN THE 800 MHZ AND 1800 MHZ BANDS

If following the submission of the applications it results that:

- there is still unassigned spectrum in either the 800 MHz or 1800 MHz bands, or both; and
- there is no excess demand for spectrum as expressed by the applicants on the basis of the unrelaxed spectrum caps in any of the lot categories,

then the Authority at its discretion, may ~~will~~ relax the spectrum caps in the band/s in question as follows:

- A cap of three (3) 5 MHz paired channels will apply in the 800 MHz band;
- A spectrum cap of eleven (11) 5 MHz-channels in the 900 MHz and 1800 MHz bands, with a maximum cap of four (4) in the 900 MHz band, inclusive of any channels already assigned in these bands.

~~In this case these new spectrum caps would come into effect straightaway in the assignment process.~~

For the sake of clarity it should also be noted that in any case the overall spectrum cap of 230 MHz will not be relaxed and will remain unaltered.

~~In case there is excess demand for spectrum in any of the lot categories, the Authority reserves the right to relax the spectrum caps as outlined above, as part of the brokered meetings. However, should an auction be required, then the spectrum caps will not be relaxed and the caps established in Section 2.4 will apply.~~

### **3.4.2 APPLICABILITY OF SPECTRUM CAPS**

The applicable spectrum caps, whether relaxed or otherwise, will also apply following the finalisation of the assignment process and no person shall at any point in time, hold rights of use of spectrum in these bands in excess of these caps. Thus, the amount of spectrum awarded to any one single applicant will not exceed the spectrum caps established above.

Furthermore it should be noted that any one or more companies ~~or commercial entities however so described~~ forming part of a group of companies ~~or commercial entities however so described~~, or otherwise associated with each other will not be able to submit more than one application. This is to ensure that no entity can acquire rights of use in excess of the caps thus allowing for competitiveness in the use of the spectrum.

## 4. Assignment Process

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### 4.1 PROCESS OVERVIEW

The Authority intends to initiate the assignment process in case of market demand. The Authority will split the assignment process into two main stages, namely the Assignment Stage and the Grant Stage.

The **Assignment Stage** will establish the number and type (that is in which lot category) of lots to be assigned to each successful applicant.

The **Grant Stage** will establish the specific lots that will be awarded to the successful applicants and will be concluded with the issuance of the 'rights of use' documents.

The process for the assignment of spectrum in these bands will be as follows:

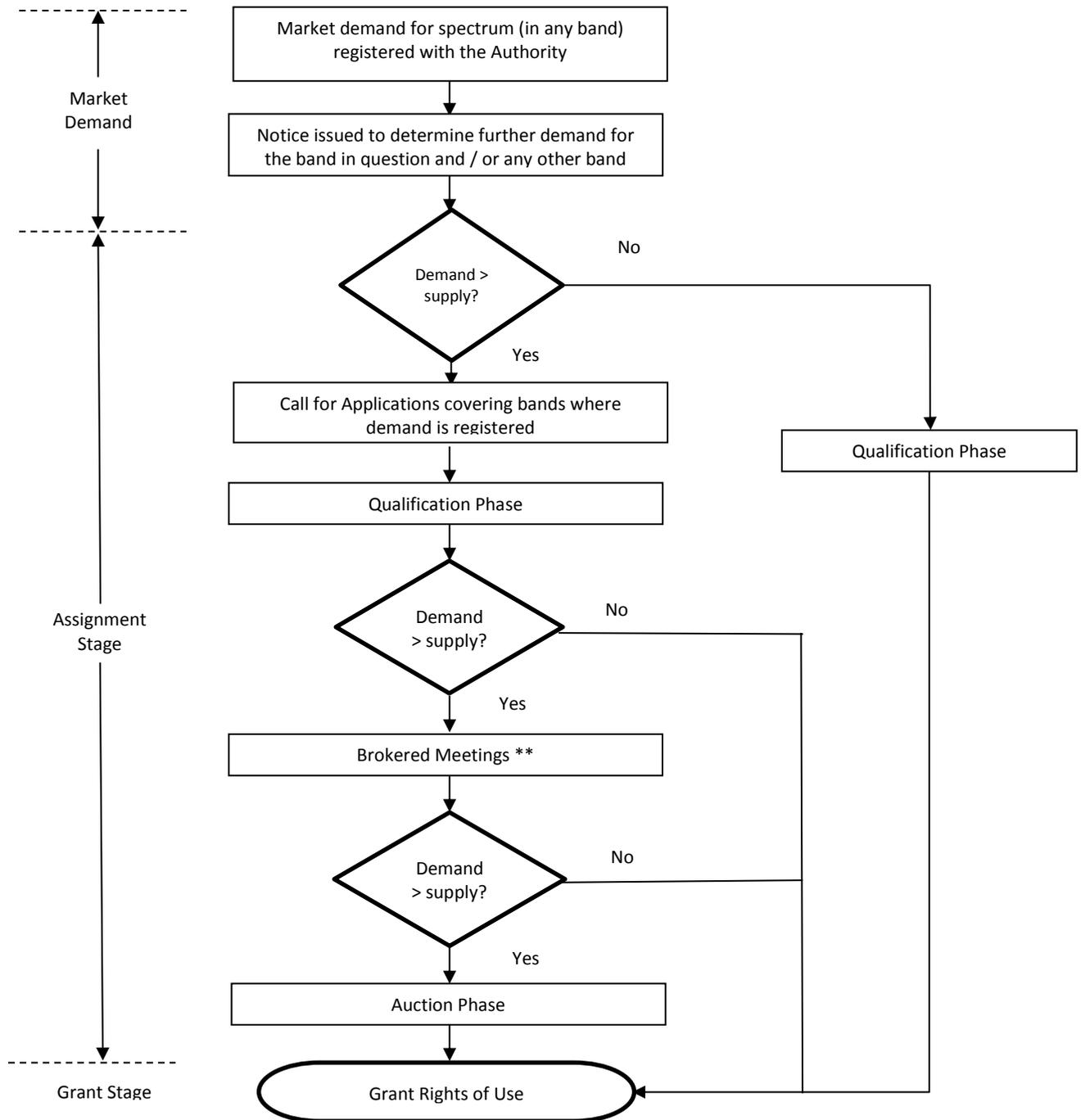


FIGURE 5: ASSIGNMENT METHODOLOGY

\* If the Call for Applications includes spectrum in the 800 MHz band then the process will only move to the next phase subject to a successful completion of the co-ordination process. See further details in Section 3.3.2.

\*\* The Brokered Meetings will be held at the Authority's discretion.

## 4.2 MARKET DEMAND

The Authority will initiate the assignment process if it receives a formal request for spectrum. This request could be for any spectrum in any of the bands under consideration in this Decision.

At this point, the Authority will publish a notice announcing the receipt of this request and will request any other interested parties to come forward within a given timeframe. Moreover, considering that the spectrum bands being considered are complementary and substitutable, the Authority will also request the interested parties to indicate any demand for spectrum in any of the other bands under consideration in this document.

If on the expiry of this timeframe it results that there is excess demand in any lot category, then the Authority will issue a formal Call for Applications. This will put on offer all the available spectrum in the bands for which market demand was registered. Otherwise the Authority, following the qualification of the applicants, will proceed to a direct assignment.

The Authority shall, in the absence of market demand, reserve the right to issue an expression of interest for the assignment of the right of use for additional spectrum for wireless. The MCA will, based on proportionate, objective and transparent reasons, issue an expression of interest as it deems appropriate whilst taking into utmost consideration the latest market developments and after sounding carefully the needs of the local industry.

## 4.3 ASSIGNMENT STAGE

### 4.3.1 CALL FOR APPLICATIONS

The process will be launched with a Call for Applications ('Call').

The call for applications will include:

- a non-refundable application fee;
- an appropriate bid bond/performance guarantee. The bid bond is intended to ensure an applicant's commitment to the assignment process, lasting up to the award of a grant of rights of use. In the case of unsuccessful applicants the bid bond will be released at the end of the assignment process and once the successful applicants have been announced. In the case of successful applicants the bid bond will be maintained as a performance guarantee. The performance guarantee will serve as evidence of good faith, to guarantee that the licensee will honour the winning bids and will abide by the licence conditions; and
- an appropriate deposit which will be reflective of the first year spectrum fees and the applicant's spectrum requirements.

Applicants will not apply for specific frequencies in the different bands but for a number of lots in each lot category as established in Section 3.3. Applicants will need to state the maximum number of lots in each lot category that they may eventually apply for throughout the course of the process ('Maximum Interest').

In addition applicants will be required to state their preferred combination of lots in the different lot categories ('Preferred Option'). The overall demand for lots in each of the different lot categories will be determined by the Authority on the basis of the Preferred Option submitted by all the applicants.

In addition to the Preferred Option, applicants will be required to indicate alternative options that would suit their needs in the case that demand for the spectrum exceeds supply ('Alternative Options'). This information will be used in confidence by the Authority in the event that brokered meetings need to be held.

In expressing both their Preferred and Alternative Options, the applicants must abide by the spectrum caps mentioned in Section 2.4 and the Maximum Interest declared by them as mentioned above. Any application containing an option that exceeds either of these limits will be disqualified.

#### 4.3.2 QUALIFICATION PHASE

The qualification process will assess whether applicants have the necessary standing to fulfil the licence obligations should they be successful in acquiring the spectrum rights. It will not rank applicants. The outcome of this phase will be a pass/fail result based on a set of criteria including but not be limited to:

- The applicant's credentials<sup>1</sup>;
- The applicant's experience in the establishment, operation and commercialisation of electronic communications networks;
- The applicant's business plan; and
- Access to adequate financing for the venture.

~~In this case, it is important to point out that, the spectrum assignment in the 800 MHz band is dependent on the successful completion of the frequency co-ordination process. However, for the sake of expediting the process, the Authority is considering the co-ordination and assignment processes as two distinct work streams that can run in parallel. In view of this, the Authority is introducing the following safeguards in the assignment process.~~

#### ~~In case of a successful co-ordination outcome~~

At the end of the Qualification Phase an assessment of the demand for spectrum by the qualifying applicants will be carried out. If demand in each lot category (as expressed in the applicants' Preferred

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<sup>1</sup> The applicants for wireless broadband spectrum needs to be registered as an operating company in Malta.

Options) does not exceed supply, then the rights of use of spectrum will be granted directly to the applicants in line with the process outlined in Section 4.4 below.

#### ~~In case co-ordination not yet successfully concluded~~

~~If by the time the qualification process is completed successful co-ordination has not yet been achieved, the Authority will retain the right, at its discretion, to halt the assignment process for all the spectrum in question for a maximum period of six months. Should a successful co-ordination be achieved during this period, then the Authority will proceed as outlined above. Should no successful co-ordination be achieved by this time the Authority will retain the right to abort the assignment process.~~

~~In case the process is aborted, all the material related to the individual submissions will be returned to the respective applicants.~~

#### **4.3.3 BROKERED MEETINGS**

In the event that demand exceeds the availability of spectrum in any of the lot categories, the Authority reserves the right, at its own discretion and without binding itself to do so, to carry out a set of brokered meetings with the qualifying applicants. The objective of these meetings will be to reach an agreement on an assignment plan that addresses the requirements of all the qualifying applicants. In order to protect commercial interests, the meetings will be held separately with each qualifying applicant.

In developing the proposals cognisance will be taken of the spectrum requests put forward by the applicants, the preferences indicated, their business and technical plans and the outcome of the discussions during the meetings.

If the proposal so developed is accepted by all the parties, then the Authority will proceed with the granting of rights of use in accordance with the agreement reached.

In the absence of a full agreement being reached at the end of the brokered meetings, the Authority reserves the right to attempt to reach agreement to assign parts of the spectrum, whereby only the remaining channels would be auctioned.

Any proposed solution reached between the Authority and each of the qualifying applicants will be binding on the individual applicants but not on the Authority in view of the fact that the Authority will first have to ensure that the proposed solution reached fits within an overall solution acceptable to all the qualifying applicants.

In the event that no agreement (whether full or partial) is reached between the qualified applicants and the Authority, or alternatively should the Authority decide not to hold brokered meetings, then all the spectrum in the bands under consideration in the Call will be auctioned.

#### 4.3.4 AUCTION

The auction design will take due account of the complementary and substitutable characteristics of the bands in question and will provide for:

- package bidding: applicants will be required to simultaneously bid for lots in all the bands<sup>2</sup>. All combination bids submitted by each applicant at any stage of the auction must be in line with its expressed “maximum interest”, the spectrum caps mentioned above and any other criteria that would be established in the Auction Rules ; and
- avoidance of default by bidders: measures such as deposit top-ups will be in place, as the case may be.

The Authority will retain the option to publish the auction rules only if, following the qualification phase, demand exceeds supply. In this case, the Authority will publish the said Rules prior to the Brokered Meetings and the applicants will be given the opportunity to withdraw their applications at that stage.

Qualifying applicants who at that stage do not withdraw their application will be obliged to take part in at least the first round of any eventual auction. Failure to do so will result in a forfeit of the bank guarantee.

#### 4.4 GRANT STAGE

The Authority will have the sole and unlimited discretion to award the particular channels in the way it deems best in the interest of spectrum efficiency.

This notwithstanding, as part of their submissions to the Call, interested parties will be invited to indicate their ranked preferences for particular frequency channels in a given band/s and provide a justification for such preference. However, this in no way will mean that the Authority is bound to assign the frequencies in accordance with the expressed preferences of applicants.

Once the outcome of the Assignment Stage<sup>3</sup> is known, the Authority will proceed to the award of the specific contiguous<sup>4</sup> swathes of spectrum to each successful applicant, as may be possible when taking into consideration existing spectrum assignments. Should there be no way to easily reconcile the applicants’ preferences, then a lottery will be used to determine the band assignments.

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<sup>2</sup> For sake of clarity it is being emphasised that applicants will apply and eventually bid for “a number” (quantity) of channels in each lot category and not for specific (identified) channels in each band

<sup>3</sup> The **Assignment Stage** establishes the number of lots in each lot category awarded to each successful applicant

<sup>4</sup> The channels assigned to each applicant within a given band will be contiguous. Contiguity of channels sitting in different bands will not be guaranteed

#### **4.5 FUTURE OF UNASSIGNED SPECTRUM**

In the event that any spectrum remains unassigned, this will become available to any interested party under the conditions being established by this decision. Any request by an interested party will be published and should further interest be expressed this will trigger the above outlined process.

## 5. Conditions of Rights of Use

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### 5.1 SPECTRUM PRICING

The annual spectrum fees ~~will be~~ are established by Government in ~~due course but before the launch of the assignment process. It is expected that these fees will be established through an amendment of~~ the Eighth Schedule of the Electronic Communications Networks and Services (General) Regulations (S.L. 399.28 of the Laws of Malta).

### 5.2 LICENCE DURATION

The rights of use of spectrum will be granted for a term of fifteen (15) years.

~~In the case of the 800 MHz band, the licence duration will commence from the grant date or the date when the band becomes available for mobile services, whichever comes latest.~~

### 5.3 TECHNOLOGY NEUTRALITY

In line with the principles established in the EU Framework Directive (2002/21/EC as amended by 2009/140/EC) the spectrum will be assigned on a technology neutral basis. Therefore licensees will be free to deploy any technology as long as they comply with the relevant EU spectrum harmonisation decisions namely, 2010/267/EU for the 800 MHz band, ~~2011/251/EU~~ 2009/766/EC for the 1800 MHz band and 2008/477/EC for the 2.5 GHz band.

The Authority retains its right to amend the assignments made, and any of the terms and conditions of the licence to reflect legal changes that are imposed upon it, EU harmonisation requirements and to cater for other needs that the local market may have throughout the term of the licence, taking due account of its obligations at law.

### 5.4 SERVICE NEUTRALITY

In line with the principles established in the EU Framework Directive (2002/21/EC as amended by Decision 2009/140/EC), no limitations with respect to the services that may be offered over the spectrum acquired in this process will be imposed. However, in conformity with its powers at law, the Authority reserves the right to impose certain service obligations.

## 5.5 NETWORK ROLLOUT AND COVERAGE OBLIGATIONS

In order to ensure maximum benefits for all the users, licensees will be required to make any technology they offer available on a nationwide basis. Licensees will have up to twenty four (24) months from the date of assignment to come in line with this obligation, and subsequently to maintain it for the whole duration of the licence.

Specifically licensees will be required to use all the spectrum assigned to them within a twenty four (24) month timeframe from the date of assignment.

~~In the case of licences which include spectrum in the 800 MHz band, the 24 month timeframe will commence from the grant date or the date when the band becomes available for mobile services, whichever comes latest.~~

In addition, whenever a new technology is launched throughout the term of the licence, the licensee will be bound to offer this technology nationwide within a 24 month timeframe from the said launch.

## 5.6 INTERFERENCE MITIGATION CONDITIONS

### 5.6.1 THE 800 MHZ BAND

The deployment of mobile services in the 800 MHz band is anticipated to give rise to interference with the broadcasting service. As a result the Authority will include the following mitigation measures in the rights of use.

#### Technical conditions included in Rights of Use

The Authority will adopt the harmonised technical conditions for the deployment of electronic communication services in the 790 – 862 MHz band established in the European Commission decision 2010/267/EU.

In particular:

- The in-block EIRP for ~~Channel 1~~ all the Channels in the 800 MHz band will be set at ~~56 dBm/5 MHz, whilst for the other channels it will be set at 60 dBm/5 MHz.~~
- The baseline requirements for the base station BEM out-of-block EIRP limits over frequencies below 790 MHz will be those established under Case A in Table 4 of the said EU decision.

~~The Authority reserves the right to relax these technical conditions at any point throughout the term of the licence, particularly in case of material changes to the local terrestrial broadcasting scenario or as a result of technological developments. The Authority will also consider relaxing the technical conditions should licensees reach an agreement to this effect with the digital terrestrial television (DTTV) operator.~~

The Authority shall also have the right to adjust these limits in cases of interference of any kind with other licensed operators. The Authority may also include any other technical restrictions as identified during the spectrum co-ordination process meetings with neighbouring countries. Such technical restrictions will apply so as to ensure co-existence of the local 800 MHz mobile services with the broadcasting services operated in neighbouring countries. Should this be the case, these technical conditions will form an integral part of the licence.

~~The outcome of the co-ordination process might include technical restrictions that would need to be adhered to so as to ensure co-existence of the local 800 MHz mobile services with the broadcasting services operated in neighbouring countries. Should this be the case, these technical conditions will form an integral part of the licence.~~

#### **Interference Mitigation Obligation – Establishment of a Fund**

A fund will be established between the 800 MHz band licensees ~~post assignment or as agreed otherwise between the MCA and the potential candidates for the radio spectrum band in question prior to the assignment and under the oversight of the MCA.~~ The fund will cover the costs related to the mitigation measures that may be required to solve interference issues to aerial television reception installations resulting from the deployment of outdoor base stations operating in the 800 MHz band to the detriment of the various viewers making use of such aerials.

Holders of rights of use of radio spectrum in the 800 MHz band will be required to contribute to this fund in proportion with the number of assigned channels, irrespective of their individual rollout and coverage plans for the band or specific channels within the band.

For example consider that two licensees acquire rights of use in this band. Licensee A gets the rights for 3 channels and Licensee B gets the rights for 1 channel. Then Licensee A will fund 75% of the costs and Licensee B 25%.

The licensees in question will not be required to deposit the full fund instalment immediately. Instead a system of periodic instalments will be established.

If not all channels are assigned simultaneously and a subsequent assignment of spectrum in the 800 MHz band takes place, there will be a recalculation of the maximum contribution due by each licensee. In this case, the new licensee will be required to pay an upfront contribution proportionate to the number of channels acquired and to the fund paid to date, calculated as per the example above.

This fund will be capped to cover only the costs for any interference issues suffered by aerial television reception installations that were already in place as at the date of completion of the 800 MHz band clearance. Thereafter the necessary equipment required to avoid interference problems should be installed as part of any new installation and funded by the installation owner.

On the basis of the subscriber information currently in hand the fund cap is set at €4.5 million. The exact figure will be established in the Call for Applications to reflect any changes in the number of subscribers till then. However, it is not expected that this will result in substantial changes to this figure.

The fund will be operative for the entire duration of the 800 MHz rights of use or up to such time that the fund is exhausted or national coverage on all six (6) channels in the band is achieved. The Authority reserves the right to terminate the fund earlier, as a result of developments which render it redundant.

Once the fund is terminated any residual funds will be redistributed amongst the contributing licensees, pro-rata on the basis of their contribution.

Unless agreed otherwise between the MCA and the potential candidates for the radio spectrum band in question, it will be the responsibility of the 800 MHz band licensees to establish a fund management plan. Licensees will have a period of three months from the date of grant of rights of use to present a fund management plan. In this respect the Authority will specify a priori a number of aspects that will need to be addressed in this plan which will include, but not be limited to:

- Consumer complaint handling process that includes active participation of any DTTV operators and that establishes resolution timeframes;
- Payment terms of the periodic fund instalments;
- Audit measures to ensure proper administration of the fund.

In all instances, the Authority will remain an escalation point to resolve any outstanding issues/disputes. In this respect the Authority will retain the right to take any measures it deems appropriate for the case in accordance with its powers at law and under the licence.

Should the 800 MHz licensees fail to present an adequate management plan within the stipulated timeframes, the Authority reserves the right to manage the fund (or outsource it) on their behalf. In this case, the relevant costs will be borne by the licensees in question and will be in addition to the fund cap and the licence fees.

Furthermore, the establishment of the fund, the management plan and the deposit of the first fund instalment, will be preconditions for the licensees to start using their 800 MHz spectrum holdings.

The LTE deployments in the 800 MHz band will constitute a level of interference to the reception of the local DTTV transmissions. ~~learning experience for all the parties involved.~~ The Authority will therefore be requiring a staggered and managed rollout unless it determines otherwise. ~~in the initial~~

~~period. This will help all the stakeholders gain a better understanding of the issues involved and the respective resolution measures.~~

### **Siting conditions**

In order to minimise the possibility of interference with Program Making and Special Events (PMSE) equipment operating in the 800 MHz duplex band in line with the ~~upcoming~~ EU decision, the licensees will not be authorised to deploy indoor cells operating on the 800 MHz band in buildings wherein the use of PMSE is essential for the fulfilment of the said building's function for example theatres, studios and auditoriums.

### **5.6.2 THE 1800 MHZ BAND**

The conditions established in the EU decision on the harmonisation of the 900 MHz and 1800 MHz bands (~~2011/251/EC~~2009/766/EC) will apply.

### **5.6.3 THE 2.5 GHZ BAND**

The Authority will adopt the technical conditions established in the EU decision on the harmonisation of the 2500 – 2690 MHz band (2008/477/EC).

## **5.7 HANDBACK CONDITIONS**

A licensee can, on providing the Authority with objective and justified reasons, request the hand back of all or part of the spectrum assignment in a given band. The Authority shall review any such requests on a case-by-case basis taking into utmost consideration the current state of play for the spectrum band in question, the market conditions, as well as any other criteria that the Authority deems appropriate.

The Authority shall in deciding whether to accept or to reject any such request state its reasons therefor. If the Authority decides to accept a request, it may in doing so provide for any such terms and/or conditions which will be binding on the licensee as it may consider appropriate in the circumstances. Such terms and/or conditions may also include the waiver by the Authority in part or in whole of any handback fees which would otherwise be due under this section of the Decision.

The Authority in taking any decision under this section shall take into utmost consideration the current state of play for the spectrum in question, the market conditions, and any other criteria that it considers relevant.

Any handback request and subsequent decision, shall be made public on the MCA's website.

~~In the case that demand for spectrum in a given band does not exceed supply at any stage in the assignment process, then licensees will be able to hand back all or part of their spectrum assignment in that band. In this case these licensees will not be required to pay any future spectrum fees related to the channels handed back, but will not be entitled to a refund of those fees already paid or that were due by them until the date of the handback.~~

If a licensee rescinds spectrum in a band where the initial demand for the band in question did not exceed supply, then the licensee must pay a handback fee that is equivalent to one (1) annual fee for the band in question over and above the annual fees already due.

If a licensee rescinds spectrum in a band where the initial demand for the band in question exceeded supply, then the licensee must pay a handback fee that is the equivalent of three (3) annual fees for the band in question over and above any other annual fees already due.

The handback provision does not exonerate the licensee in question from honouring its rollout obligations in accordance with the licence awarded to it. In the event that the licensee fails to comply with these obligations, penalties including, but not limited to, a forfeit of the bank guarantee, will apply.

## 5.8 SANCTIONS

Clear sanctions will be included in the rights of use in the event of non-compliance with any obligations stipulated therein. These sanctions will include 'use it or lose it' clauses.

## 6. Implementation

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The assignment process will start upon market demand and the envisaged timeframes are as follows<sup>5</sup>:



\*\* If required

**Note:**

The above timeframes are indicative and do not bind the Authority to adhere to them.

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<sup>5</sup> The envisaged timelines do not bind the Authority to adhere strictly to the timings laid down. Whereas the Authority shall make all reasonable endeavours to comply with the said timings, it shall not be responsible in any way whatsoever for any deviation from these envisaged timelines, and may change these as it deems fit according to the circumstances

## 7. Summary of Decision

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- The channelling arrangements established in 2010/267/EU, 2009/766/EC and 2008/477/EC will be adopted for the 800 MHz, 1800 MHz and 2.5 GHz bands respectively.
- Spectrum in the 800 MHz, 1800 MHz and the paired sub-band in the 2.5 GHz bands will be assigned in multiples of paired 5 MHz channels.
- The unpaired spectrum in the 2.5 GHz bands will be assigned in two 25 MHz lots.
- The spectrum caps will be as follows:
  - A cap of two (2) 5 MHz paired channels will apply in the 800 MHz band;
  - The spectrum cap established in the Authority's decision of 2010 (MCA/10/44/D) will be retained, namely an overall cap of eight (8) 5 MHz paired channels will be applied over the 900 MHz and 1800 MHz bands with a limit of four (4) channels in the 900 MHz band. This spectrum cap will be inclusive of any channels already assigned in these bands; and
  - An overall spectrum cap of 230 MHz that takes into consideration all assignments in the 800 MHz, 900 MHz, 1500 MHz, 1800 MHz, 2.1 GHz and 2.5 GHz bands. For the avoidance of doubt this includes also unpaired spectrum and the applicant's spectrum holdings at the time of the call of applications. For the purposes of the spectrum cap calculation or spectrum already assigned, a paired 5 MHz channel will be considered as 10 MHz.
- Should there be unassigned spectrum in the 800 MHz and/or 1800 MHz bands and there is no excess demand for spectrum, the MCA, at its sole discretion may relax the respective caps as follows:
  - A cap of three (3) 5 MHz paired channels will apply in the 800 MHz band.
  - A spectrum cap of eleven (11) 5 MHz-channels in the 900 MHz and 1800 MHz bands, with a maximum cap of four (4) in the 900 MHz band, inclusive of any channels already assigned in these bands.
  - In any case the overall spectrum cap of 230 MHz will not be relaxed and will remain unaltered.
- The assignment process will be initiated either upon market demand or in the case of lack for such a demand, by the publication of an expression of interest by the MCA after consulting the local industry.
- A Call for Applications will be issued for spectrum in all the bands where there is registered market demand.
- The assignment process will be as follows:
  - The first step will be a qualifying phase based on a number of criteria;
  - Should the available spectrum be sufficient to cater for the registered demand, then the spectrum will be assigned directly to all qualified applicants in line with their requirements;

- The second step will kick in should demand exceed supply. The Authority reserves the right to hold brokered meetings with the qualifying applicants aimed at finding an acceptable assignment for all parties;
- If no solution is arrived at, or should the Authority decide not to hold brokered meetings, an auction for all the spectrum in all the bands will be held.
- If the Authority decides to attempt a solution through brokered meetings, applicants may be given the option to accept a partial assignment of spectrum with only part of the spectrum going to auction. Such an approach will be adopted if all applicants take up this option. If a common agreement cannot be reached, then all the spectrum in all the bands will be auctioned.
- Rights of use will be granted for a fifteen year term.
- Rights of use will be service neutral.
- The 800 MHz band licensees ~~or as agreed otherwise between the MCA and the potential candidates for the radio spectrum band in question~~ will be required to establish a fund between them to make good for the costs related to the mitigation measures. The fund cap (currently set at €4.5 million) will be established by the Authority in the Call for Applications.
- Rights of use will be granted under the technical conditions stipulated in the 2010/267/EU, ~~2011/251/EC~~ 2009/766/EC and 2008/477/EC decisions. In particular for the 800 MHz band the following parameters will apply:
  - The in-block EIRP for ~~Channel 1 will be set at 56 dBm/5 MHz, whilst for the other Channels it will be set at 60 dBm/5MHz.~~ all the Channels in the 800 MHz band will be set at 60 dBm/5 MHz.
  - The baseline requirements for the base station BEM out-of-block EIRP limits over frequencies below 790 MHz will be those established under Case A in Table 4 of the said EU decision.
- The successful applicants will be required to make any technology they deploy available nationwide within 2 years from the grant date. ~~If the assignment includes spectrum in the 800 MHz band then the 24 month timeframe will initiate upon grant or the date when the 800 MHz band becomes available for mobile services, whichever comes latest.~~
- The successful applicants will be required to use all the assigned spectrum within 2 years from the grant date. ~~or the date when the 800 MHz band becomes available for mobile services, whichever comes latest~~
- Handback conditions will be included in the licence.
- Sanctions such as a 'use it or lose it' clauses will be included in the licence.

Annex 1 – Analysis of responses and Authority’s position has been omitted from the amended Decision.